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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Redevelopment of Spectrum to)
Encourage Innovation in the)
Use of New Telecommunications)
Technologies)

ET Docket No. 92-9

COMMENTS

Edward R. Wholl
Katherine S. Abrams

NYNEX MOBILE COMMUNICATIONS COMPANY
2000 Corporate Drive
Orangeburg, New York 10962
(914) 365-7515

Its Attorneys

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SUMMARY

NYNEX Mobile Communications Company ("NMCC") applauds the Commission's efforts to encourage spectrum efficiency and to stimulate new technology and service development. However, the Commission's proposal to reallocate 220 MHz of spectrum in the 2 GHz band from existing licensees for the benefit of emerging new technologies requires further consideration before selecting a specific (and perhaps too limited) range of spectrum for such new services and technologies.

NMCC believes that the Commission should continue to work with the National Telecommunications and Information Agency to develop a comprehensive spectrum policy that can accommodate long-term national telecommunications needs. By focusing its analysis on current applicants' needs, the Commission runs the risk of sacrificing long-term objectives.

If the Commission adopts the reallocation/relocation proposal, it should implement rules that will not disadvantage existing licensees, will not unnecessarily disrupt the public and will be most conducive to the introduction of new services and technologies. The Commission's tentative transition plan generally accomplishes this goal. The Commission should adopt the proposal to permit new service applicants and 2 GHz incumbents to equitably negotiate the latter's migration to higher bands. The Commission should also adopt the proposed blanket eligibility requirements waiver for bands above 3 GHz.

However, certain elements of the transition plan should be modified before adoption, in order to avoid inequitable results. For example, the Commission should not use the NPRM adoption date as the cut-off for granting applications on a primary basis. Adoption of this rule would be inequitable because it would penalize licensees who may have had point-to-point microwave sites in the planning stages at the cut-off date and did not have adequate notice of the rule change. Instead, as a more equitable alternative, NMCC proposes that the Commission set the cut-off date ninety days after the NPRM adoption date.

The Commission's proposed state and local government relocation exemption also should be modified. NMCC recognizes the importance of the public safety services provided by these bodies but believes that the Commission should exempt only those essential public safety facilities.

Finally, in order to protect scarce and valuable spectrum resources, the Commission must adopt rules to ensure that the spectrum is used to serve the public interest in the most efficient manner. Thus, the Commission should reserve new spectrum allocations for those who can demonstrate that they will provide new and unique services and technologies that are not available from existing spectrum licensees and that will benefit the public.

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To: The Commission

COMMENTS

NYNEX Mobile Communications Company ("NMCC"), by its attorneys, submits the following Comments in response to the Notice of Proposed Rulemaking ("NPRM") released on February 7, 1992, in the above-captioned proceeding.

I. INTRODUCTION

In the NPRM, the Commission proposes to reallocate 220 MHz of spectrum from the 1.85 and 2.20 GHz bands for the use of emerging telecommunications technologies (NPRM, para. 1). To make room for these new technologies, the Commission proposes to relocate most current licensees¹ to other fixed microwave bands

¹ State and local governments would be exempt from the reallocation process and would be permitted to continue to operate in the 2 GHz band (NPRM, paras. 1, 26).

or alternative technologies, such as fiber optics, over a ten to fifteen year transition period (NPRM, para. 24).²

NMCC, through its operating subsidiary, operates cellular systems in markets located throughout the northeastern United States. In order to exercise greater control over its cellular systems' operation and maintenance, NMCC extensively uses point-to-point microwave services, with many of its paths operating in the 2 GHz band.³ If NMCC is forced to relocate these facilities to other portions of the spectrum, it would be both costly and disruptive to the efficient provision of cellular services. As a result, NMCC has a vital interest in the outcome of this proceeding.

As a cellular industry member and a Commission licensee, NMCC has often supported Commission initiatives designed to encourage the efficient use of the spectrum and to stimulate the introduction of new technologies and services. However, greater analysis is required before the Commission adopts a decision which will profoundly impact the development of this country's telecommunications infrastructure.

² To encourage early relocation of existing licensees, the Commission proposes to permit parties seeking to operate new services to negotiate financial arrangements with existing 2 GHz users.

³ NMCC currently operates thirty-four 2 GHz paths and is in the process of implementing four additional 2 GHz paths.

II. THE COMMISSION'S PRESENT PROPOSAL SHOULD BE PART
OF A COMPREHENSIVE SPECTRUM MANAGEMENT EFFORT

The NPRM record does not fully detail the justification for the reallocation of the 2 GHz band and the migration of current users to higher bands or more costly alternative technologies.⁴

The Commission's 2 GHz reallocation proposal for emerging technologies is based primarily on the Office of Engineering and Technology's ("OET")⁵ conclusion that the 2 GHz band is the only currently available spectrum technically suited to the proposed operations. The OET did not consider non-commercial spectrum under the jurisdiction of the National Telecommunications and Information Administration ("NTIA") because of "the delay and uncertainty that would be involved in obtaining reallocation" (NPRM, n. 11). The OET's recommendations must be considered with other relevant information.

The development of a strong telecommunications infrastructure requires that the Commission adopt a comprehensive spectrum management plan focused on long-term solutions to this

⁴ The Commission has suggested that existing 2 GHz users consider fiber optic cable as an alternative (NPRM, n. 17). It would not be economical for NMCC to choose fiber as a point-to-point microwave alternative. NMCC incurs an average cost of \$150,000 per microwave hop. In contrast, NMCC estimates the per mile cost of fiber optic cable deployment to be \$200,000 in urban areas, \$100,000 in suburban areas and \$50,000 in rural areas. With terminal equipment at each end costing approximately \$50,000, the cost of replacing one 25 mile 2 GHz microwave path in a rural area would be \$1.3 million.

⁵ See "Creating New Technology Bands for Emerging Telecommunications Technology", FCC/OET TS92-1 (January 1992).

nation's communications needs.⁶ To be successful in this effort, the Commission should continue to work jointly with the NTIA to determine whether presently reserved federal government spectrum might be made available for commercial purposes.⁷

The OET is most likely correct in its observation that federal spectrum will not be available for commercial use for several years. However, the development of a comprehensive spectrum management plan should not be sacrificed particularly when, as here, the number and content of pre-comment filings suggest that further consideration is required before the Commission selects the range of spectrum for new services and technologies and where the reallocation and relocation will affect existing licensees and their customers.⁸

⁶ The Commission should further the comprehensive spectrum policies that were begun in the NTIA Policy Review, February 23, 1990 and the PCS Docket, see Amendment of the Commissions Rules to Establish New Personal Communications Services (Notice of Inquiry), Gen. Docket No. 90-314, 5 FCC Rcd 3995 (1990). These may have worldwide consequences in connection with the World Administrative Radio Conference; see the Commission's Notice of Inquiry, Gen. Docket No. 89-554, 4 FCC Rcd 8546 (1989).

⁷ As the Commission knows, Congress is also considering the transfer of reserved federal government spectrum. The "Emerging Telecommunications Technologies Act" would require NTIA to reallocate a portion of the federal government spectrum for use by emerging telecommunications technologies.

⁸ The Commission has successfully distinguished between the need for additional spectrum and the concept of the provision of new services through flexible use of existing allocations, e.g. Amendment of Parts 2 and 22 of the Commission's Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service, Gen. Docket 87-390, 3 FCC Rcd 7033 (1988) (making digital cellular services possible) and In the Matter of Fleet Call, 6 FCC Rcd. 1533 (1991); recon. den. 6 FCC Rcd 6989 (making enhanced SMR services possible).

The OET's further conclusion that the 2 GHz band is the frequency for which most state-of-the-art equipment has been developed, while correct, does not take into account the likely response of manufacturers to alternative proposals. Given the telecommunications industry's rapid innovative pace over the last five to ten years, it is highly probable that manufacturers may develop and introduce cost-effective equipment operating in 3 GHz and higher bands once spectrum in these bands is allocated for emerging technologies.

III. THE COMMISSION'S TRANSITION PLAN REQUIRES SOME MODIFICATIONS

The Commission requests comments on a tentative transition plan that is designed to implement the reallocation/relocation proposal in a manner that is most advantageous to existing licensees, least disruptive to the public and most conducive to the introduction of new services (NPRM, para. 22). As set forth above, NMCC believes that the current proposal requires further consideration; however, in the event that the Commission adopts the proposal, the transition plan proposed, with some modifications, would provide a reasonable implementation mechanism.

A. Equitable Negotiations Between Parties Would Expedite An Incumbent's Relocation to Different Facilities

NMCC agrees with the Commission's proposal to "permit parties seeking to operate new services to negotiate with the existing users for access to the 2 GHz frequencies and, conversely, to permit incumbents to negotiate with the new service providers for continued use of the spectrum" before the proposed transition period ends (NPRM, para. 26).⁹

The Commission's proposal would clearly facilitate the 2 GHz band migration by permitting new users to help underwrite the expense that existing users will incur when relocating to other frequency bands or alternative technologies. The proposal would serve the public interest because it would not require incumbents to recover the relocation costs from their customers in the form of increased charges.¹⁰

B. A Blanket Waiver Of Spectrum Eligibility Rules Will Facilitate The Relocation Of Existing Licensees

The Commission proposes to make available all fixed microwave bands above 3 GHz for existing user relocation. To

⁹ If the Commission permits parties to negotiate compensation arrangements applicable to an incumbent's migration to new facilities, NMCC would not be opposed to the Commission's alternative proposal to reallocate the spectrum in phases.

¹⁰ A Commission decision to issue tax certificates to point-to-point microwave licensees who are forced to relocate their facilities would further facilitate the licensees' efficient migration to other frequency bands or facilities. As the Commission has recognized, Section 1071 of the Internal Revenue Code permits non-broadcast licensees to obtain tax certificates. Telocator Network of America, 58 RR 2d 1443 (1985).

provide for this relocation, the Commission also proposes to grant a blanket eligibility requirements waiver for these higher bands (NPRM, para. 20). NMCC supports the Commission's proposal. The blanket waiver would facilitate existing 2 GHz users migration to higher bands by eliminating potential regulatory roadblocks preventing otherwise ineligible carriers from using those frequencies.¹¹

C. The Commission Should Grant Applications For Fixed Operations On A Primary Basis For Ninety Days After The NPRM's Adoption Date

In order to discourage speculative applications for 2 GHz facilities, the Commission proposes to grant on a secondary basis, applications for new 2 GHz facilities submitted after the adoption date of the Notice (NPRM, para. 23). Although NMCC

¹¹ The Commission proposes to encourage "licensees moving from the 1.85-2.20 GHz band with path lengths of under 10 miles to reaccommodate their operations in frequency bands above 10 GHz to preserve general spectrum availability in the lower bands for longer path links not feasible at the higher frequencies" (NPRM, para. 20). NMCC recommends that the Commission structure the application process so that current point-to-point users move to the frequency most appropriate for the particular need. For example, because the 6 GHz band can accommodate the longer path lengths and the building and maintenance costs are lower at that frequency, the frequencies in the 4 and 6 GHz bands should be reserved for paths of 10 miles or longer. On the other hand, higher frequency paths are shorter and require more power, and, thus, are more expensive to build and maintain. Because lower frequency paths (2-7 GHz) are less expensive to build and maintain, point-to-point microwave users will more likely want to acquire spectrum at the lower frequencies regardless of path length. Were an operator forced to build a longer path at a higher frequency, e.g. 10 GHz, then costly "repeaters" which boost and maintain the radio signal would have to be employed, greatly increasing such a system's building cost. Therefore, the FCC should reserve higher frequencies, such as 10, 18 or 23 GHz, for the shorter paths.

agrees that the Commission should adopt procedures that will deter speculation, the instant proposal will have an unnecessarily harsh effect on existing licensees.

The 2 GHz licensees generally require ninety days for microwave facilities' engineering, planning, and construction. As a result, many licensees may have had a number of sites in the planning or implementation phase on the NPRM adoption date. It would be unfair to these licensees, who were afforded no notice of the proposed rule, to subject sites in the planning stage on the NPRM adoption date to "secondary status". By doing so, the Commission will deny to these licensees the leverage necessary to negotiate compensation arrangements for relocating those sites. To avoid this inequitable result, without undermining the objective of the cut-off requirement, NMCC suggests that the Commission modify its proposal to make the cut-off date effective ninety days after the NPRM adoption date.¹²

D. State And Local Governments Should Be Subject To
The Rules Except For Public Safety Services

The Commission has tentatively decided to exempt state and local government agencies from the relocation proposal (NPRM, para. 25). NMCC recognizes that there are compelling public

¹² In a Public Notice released May 14, 1992, the Commission stated that "the conditional secondary status should not be applied in certain situations where additional links may be required to complete a communications network, or where new facilities and/or frequencies are operationally connected to a system, licensed prior to January 16, 1992." While the Public Notice was a helpful first step in resolving the issue, it does not go far enough to remedy potential existing user inequities.

interest considerations that may warrant the exemption of public safety facilities maintained by state and local government agencies. However, there is no reason to treat non-essential facilities maintained by state and local government agencies differently from point-to-point microwave users. To ensure equitable treatment, the Commission should require any agency requesting exemption to justify that such treatment is required for "essential" services.

E. Co-Primary Spectrum Sharing Should Be Limited To The Transition Period

The Commission requests comment on the feasibility of spectrum sharing between incumbent 2 GHz band occupants and new services licensees. Although experimental licensees have claimed that systems using Code Division Multiple Access ("CDMA") technology can function with 2 GHz microwave services without causing interference,¹³ NMCC does not believe these tests compel the conclusion that systems using a variety of new technologies can permanently share spectrum on a co-primary basis with the incumbent users without interference problems. Although the Commission should study spectrum sharing during the transition

¹³ In its June 26, 1991 report to the Commission, LOCATE concluded that tests in New York City demonstrated that incumbent users, operating under Part 94 of the Rules could share spectrum with its PCN system without interference. Similarly, in its June 14, 1991 report, PCN America claimed that its experimental spread spectrum systems, using CDMA and special equipment (adjustable notch filters and Adaptive Power Control), could co-exist on the 1850-1990 bands without causing interference to microwave users. However, some participants in the Commission's December 5, 1991, PCS En Banc hearing challenged the validity of these tests.

period, it should make no final determination until it has studied the effects of sharing over extended periods.

IV. THE COMMISSION MUST ESTABLISH STRICT GUIDELINES FOR THE
ACQUISITION OF LICENSES IN THE NEW TECHNOLOGIES BAND

Spectrum remains a scarce and valuable public resource. As the trustee of that resource, the Commission must establish reallocation standards and procedures to insure that the "user" spectrum is used to benefit public rather than private interests. The Commission should reserve spectrum for those service providers who are able to demonstrate that they propose a "new service," or technology that is "not currently provided or a substantial enhancement of an existing service."¹⁴ Whether the Commission chooses to award licenses by comparative hearing, lotteries or auctions, it should require threshold eligibility requirements and it should structure the proceedings to prevent abuse.¹⁵

¹⁴ See Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services (Report and Order), GEN Docket 90-217, 6 FCC Rcd. 3488 (1991).

¹⁵ The Commission should require applicants to demonstrate the financial resources and technical ability to build and operate their proposed system for at least one year. The Commission should also enact rules, similar to the Domestic Public Fixed Radio Service rules, to govern the transfer of licenses to prohibit process abuse, e.g. license "trafficking".


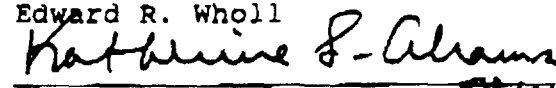
V. CONCLUSION

While the Commission's proposal is motivated by a desire to stimulate new technology development and new service introduction, NMCC encourages the Commission to defer the proposal until it has the opportunity to consider all potential options for a comprehensive long-term spectrum management plan.

Respectfully Submitted,

NYNEX MOBILE COMMUNICATIONS COMPANY

By:


Edward R. Wholl

Katherine S. Abrams

Its Attorneys

2000 Corporate Drive
Orangeburg, New York 10962
(914) 365-7515

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